

CIAP-Project Nominee Fact Sheet

Project Title: Beau Bayou Swamp Hydrologic Restoration

Entity/Individual nominating the project: St. Martin Parish, Louisiana

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Total CIAP Funds Requested: \$
Requested State Fund: \$
Parish Allocation: \$

Infrastructure Funds Proposed: \$

Description and Location of the Project: Beau Bayou Swamp is located in the west central region of the Atchafalaya Basin, St. Martin Parish. Once known as a highly productive fisheries area, hydrologic manipulation within the Atchafalaya Basin from levee construction, pipeline canal spoil banks, sediment diversions, and channelization of the Atchafalaya River led to hypoxic conditions within Beau Bayou Swamp, along with many of the Basin's other interior swamps. Most of the natural bayous and man-made canals flowing into Beau Bayou Swamp carry significant amounts of sediment adding to the already degraded condition of the swamp. The proposed Beau Bayou hydrologic restoration project would include:

- Dredging of Beau Bayou through the center of the swamp, along with dredging of some of the natural waterways. Dredged material is to be used beneficially to address subsidence problems within the adjacent swamp. Any exposed spoil is to be vegetated with native plants.
- Gapping of the natural levee along the northern east section of Bayou L'Embaras to allow for the exchange of freshwater and nutrients into the swamp.
- Creation of inline sediment traps to reduce the sediment load currently flowing into Beau Bayou Swamp.

Project Type: Conservation, restoration and protection of coastal area, including wetlands.

Project Justification: For years, there have been reports of water quality problems, fish kills, accelerated sediment accretion, and other ecological aberrations that indicate problems with the Beau Bayou area. Although limited scientific information has been collected within the boundaries of the unit, it does confirm public reports and concerns about the future of the area. The USGS has documented the rate of sediment accretion in the southern portion of the Beau Bayou WMU to be as very high relative to other areas of the Atchafalaya Basin.

It has been determined that failure to act soon with restoration efforts may result in limited options for how to manage the Beau Bayou Swamp ecosystem in the future. Poor water quality in Beau Bayou has been deemed significant enough to merit endorsement for some type of water management project, with pre and post construction monitoring. Such action is required in order to restore the ecology of the area.

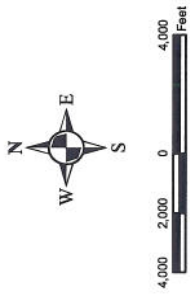
Based on a historical study, in which the engineers described the hydrological and siltation history of Beau Bayou Swamp; USGS synoptic (time synchronized) data, sedimentation patterns near Bayou Darby and Alligator Bayou, and permanent stage recorder information; LDWF fisheries data; and local fishermen's anecdotal information, it was determined that water quality and sedimentation problems do exist in the Beau Bayou area. However, there is not sufficient information to determine the level of restoration that is needed in the area.

Coastwide: Region 3 - Beneficial use of dredged material; Dedicated dredging;
Regional Strategy: # 1 (Restore Swamps) Improve hydrology, water quality, and drainage.

Project Cost Share: **State = %**
 Parish = %



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Legend

- Beau Bayou Dredging
- Bayou L'Embaras Levee Gapping
- In-line Sediment Traps

REFERENCE: 2004 DOOD Aerial Photography



ST. MARTIN PARISH

Beau Bayou Swamp
Hydrologic Restoration